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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Toshiaki Nakahira

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ALEXANDRIA, VA 22314

EXAMINER

BEMBEN, RICHARD M

ART UNIT

PAPER NUMBER

2622

NOTIFICATION DATE

DELIVERY MODE

09/03/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/697,285	Applicant(s) NAKAHIRA, TOSHIAKI	
	Examiner RICHARD M. BEMBEN	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 17-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-10, 12-14, 17, 18 and 22-37 is/are rejected.
- 7) ☒ Claim(s) 11 and 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 July 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to the previously rejected claims have been considered but are moot in view of the new ground(s) of rejection.

3. Regarding the objection of claim 22 in the previous Office Action (dated 27 March 2008), applicant' amendment is acknowledged and accepted. Therefore, the objection is withdrawn.

4. Regarding the Official Notice taken in claim 7: "To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art [...]. If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to

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traverse the examiner's assertion of official notice or that the traverse was inadequate.”

See MPEP § 2144.03 [R-1]. Therefore, since the applicant did not specifically point out the supposed errors in the examiner's action the (Official Notice) common knowledge or well-known in the art statement is taken to be admitted prior art.

5. Note: claim 37 is (new), not (currently amended)

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 2, 7, 12, 17, 18, 22, 23, 28, 29, 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,6700,607 issued to Misawa in view of the Applicant's Admitted Prior Art (AAPA).

Regarding **claim 1**, Misawa discloses a digital camera (refer to Figures 5 and 6), comprising:

an imaging device (c. 4, ll. 1-47; Figure 1, CCD 10; however the imaging device can also be MOS type or CID, see c. 5, ll. 41-45) driven by a plurality of kinds of drive modes (c. 4, l. 48 - c. 5, l. 40, Figures 2A-4B), the plurality of kinds of drive modes including a draft mode (c. 7, l. 55 – c. 8, l. 17, the mode in which the imaging device is driven by reading the signals from 1/4 or 1/8 is considered “draft mode”) and a first frame mode (c. 8, ll. 28-44, the mode in which the imaging device is driven by reading the signals from 1/2 or all is considered "first frame mode");

an image display device having a number of pixels less than a number of pixels of the imaging device (c. 8, ll. 53-60, LCD 40); and

an enlarging display setting device configured to enlarge a part of an area of a whole image obtained by the imaging device at a desired enlargement ratio and to display the part of the area being enlarged as an enlarged image on the image display device (c. 8, l. 45 - c. 9, l. 14; Figures 7-9), wherein

the drive modes for driving the imaging device is changed to the first frame mode such that a resolution of the enlarged image is equal to or greater than a resolution of the image display device (c. 8, l. 28 - c. 9, l. 14; Figures 7-9),

the first frame mode including dividing the overall pixels of the imaging device into a plurality of fields (refer to c. 4, l. 47 - c. 5, l. 7 and Figures 2A-B), and reading only one field out of the plurality of fields of the imaging device to obtain image data in one field, the enlarged image being taken in from at least a portion of the image data in one field (c. 8, l. 28 – c. 9, l. 14).

Misawa further discloses that an interlace transfer driving type CCD may be used as an imaging device (c. 8, ll. 31-33), i.e. an imaging device that is read out into a plurality of fields. However, Misawa does not explicitly disclose that the interlace transfer driving type CCD used may be read out into three fields.

AAPA discloses that CCDs of interlace type tend to read out overall pixels by dividing a frame into three or four fields rather than by dividing a frame into two fields (Applicant's Specification, p. 1, ll. 24-27). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to divide a frame into

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three fields as disclosed by AAPA when using the interlace transfer driving type CCD disclosed by Misawa "due to the decrease of capacity of a potential well in a vertical transfer path" (Applicant's Specification, p. 1, ll. 25-26).

Regarding **claim 2**, Misawa discloses the digital camera according to claim 1 and further discloses: an enlarging display position designating device configured to designate a desired position in an image displayed on the image display device, wherein the image displayed on the image display device is enlarged around the position designated by the enlarging display position designating device (c. 8, ll. 45-52, "central part enlargement button" designates a desired position in an image displayed to be enlarged).

Regarding **claim 7**, Misawa discloses the digital camera according to claim 1 and discloses a focus function such that when the focus function is performed the enlarged image is displayed on the image display device in accordance with an instruction to the enlarging display setting device (c. 8, ll. 18-52). However, Misawa does not disclose that the focus function is manual.

AAPA discloses that it is well known in the art of digital cameras to allow a photographer to manually focus an image, especially when in an artistic mode such as a macro mode. Misawa discloses the need for precise focus control in the macro mode (c. 8, ll. 28-44). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to allow manual focus, at least in the macro mode, in

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the digital camera disclosed by Misawa. One would have been motivated to allow manual focus, especially in an artistic mode such as a macro mode, in order for a photographer to adjust the image to his/her taste. For example, when photographing a flower in a macro mode, it is often desired for just a single petal to be in focus as opposed to the main petal area, or vice versa. With manual focus, a photographer could obtain these results. See ***Response to Arguments*** above.

Regarding **claim 12**, Misawa discloses the digital camera according to claim 1 and further discloses that when an enlargement instruction is input to the enlarging display setting device for a predetermined period of time or more, the drive mode is changed to the first frame mode (c. 8, l. 45 - c. 9, l. 14, "In order to realize such a central part enlarging function, the solid-state imaging device 28 is driven and the captured image is displayed on the LCD 40 as described below.").

Regarding **claim 17**, refer to the rejection of claim 1 and Misawa further discloses that the plurality of kinds of drive modes further includes a second frame mode, the drive mode for driving the imaging device is changed to the second frame mode such that an enlargement ratio used for the second frame mode is smaller than an enlargement ratio used for the first frame mode, and

the second frame mode includes dividing the overall pixels of the imaging device into a plurality of fields, and reading only one of the plurality of fields of the imaging device to obtain image data in one field, the enlarged image being taken in from at least

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a portion of the image data in one field (claim 1 requires a "draft mode" which can be either the $\frac{1}{4}$ readout or the $\frac{1}{8}$ readout; if the $\frac{1}{8}$ readout is the "draft mode", the $\frac{1}{4}$ readout can be the "second frame mode", which satisfies the limitation of claim 17, that the enlargement ratio is smaller than that of the first frame mode and only one field is used; alternatively the $\frac{1}{4}$ can be the draft mode and the $\frac{1}{8}$ can be the second frame mode).

Regarding **claim 18**, refer to the rejection of claim 17 and Misawa further discloses that the digital camera performs a focus operation, and the enlarged image displayed as a still image for a predetermined period of time when the focus operation is completed (c. 8, ll. 45-52).

Regarding **claim 22**, Misawa discloses a digital camera (refer to Figures 5 and 6), comprising:

an imaging device (c. 4, ll. 1-47; Figure 1, CCD 10; however the imaging device can also be MOS type or CID, see c. 5, ll. 41-45) driven by a plurality of kinds of drive modes (c. 4, l. 48 - c. 5, l. 40, Figures 2A-4B), the plurality of kinds of drive modes including a draft mode (c. 7, l. 55 – c. 8, l. 17, the mode in which the imaging device is driven by reading the signals from $\frac{1}{4}$ or $\frac{1}{8}$ is considered "draft mode") and a first frame mode (c. 8, ll. 28-44, the mode in which the imaging device is driven by reading the signals from $\frac{1}{2}$ or all is considered "first frame mode");

an image display device having a number of pixels less than a number of pixels of the imaging device (c. 8, ll. 53-60, LCD 40); and

means for enlarging a part of an area of a whole image obtained by the imaging device at a desired enlargement ratio and for displaying the part of the area being enlarged as an enlarged image on the image display device (c. 8, l. 45 - c. 9, l. 14; Figures 7-9),

wherein one of the at least two kinds of drive modes for driving the imaging device is changed to the first frame mode such that a resolution of the the enlarged image is equal to or greater than a resolution of the image display device (c. 8, l. 28 - c. 9, l. 14; Figures 7-9),

the first frame mode including dividing the overall pixels of the imaging device into a plurality of fields (refer to c. 4, l. 47 - c. 5, l. 7 and Figures 2A-B), and reading only one field out of the plurality of fields of the imaging device to obtain image data in one field, the enlarged image being taken in from at least a portion of the image data in one field (c. 8, l. 28 – c. 9, l. 14).

Misawa further discloses that an interlace transfer driving type CCD may be used as an imaging device (c. 8, ll. 31-33), i.e. an imaging device that is read out into a plurality of fields. However, Misawa does not explicitly disclose that the interlace transfer driving type CCD used may be read out into three fields.

AAPA discloses that CCDs of interlace type tend to read out overall pixels by dividing a frame into three or four fields rather than by dividing a frame into two fields (Applicant's Specification, p. 1, ll. 24-27). Therefore, it would have been obvious to a

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person having ordinary skill in the art at the time of the invention to divide a frame into three fields as disclosed by AAPA when using the interlace transfer driving type CCD disclosed by Misawa "due to the decrease of capacity of a potential well in a vertical transfer path" (Applicant's Specification, p. 1, ll. 25-26).

Regarding **claim 23**, Misawa discloses the digital camera according to claim 22 and further discloses: means for designating a desired position in an image displayed on the image display device, wherein the image displayed on the image display device is enlarged around the position designated by the means for designating (c. 8, ll. 45-52, "central part enlargement button" designates a desired position in an image displayed to be enlarged).

Claim 28 is a method claim corresponding to apparatus claim 1. Therefore, claim 28 is analyzed and rejected as previously discussed with respect to claim 1.

Claim 29 is a method claim corresponding to apparatus claim 2. Therefore, claim 29 is analyzed and rejected as previously discussed with respect to claim 2.

Claim 34 is a method claim corresponding to apparatus claim 7. Therefore, claim 34 is analyzed and rejected as previously discussed with respect to claim 7.

Claim 37 is a method claim corresponding to apparatus claim 17. Therefore, claim 37 is analyzed and rejected as previously discussed with respect to claim 17.

8. Claims 3, 4, 13, 24-26, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of AAPA in further view of US Patent No. 6,130,420 issued to Tanaka et al., hereinafter "Tanaka".

Regarding **claim 3**, the limitations of claims 1 and 2 are taught above by the Misawa reference in view of AAPA. Misawa further discloses a timing generator configured to generate clock signals to drive the imaging device (refer to c. 4, ll. 1-45, specifically the discussion of pulses supplied from a "CCD drive circuit"). It is also inherent that there is a system clock which generates signals that drive the image sensing device disclosed by Misawa. However, Misawa discloses that when read out mode is changed between a "draft" mode and "first frame mode" the refresh rate changes, i.e. is lower when in "first frame mode" (c. 9, l. 66 - c. 10, l. 2). Therefore, one would infer that the driving frequency is maintained between the modes.

Tanaka discloses an imaging device (c. 3, l. 59, CCD) having at least two read modes: a first mode and a second mode which reads out fewer pixels than the first mode (c. 4, ll. 51-58). Tanaka further discloses a timing generator configured to generate clock signals to drive the imaging device and a clock generator configured to change clock signals input to a timing generator from one frequency to another frequency (c. 4, l. 42 - c. c. 5, l. 2). Tanaka allows changes in frequency depending on the readout mode. Therefore, it would have been obvious to one having ordinary skill in

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the art at the time of the invention to change from one frequency to another frequency as disclosed by Tanaka in the camera system disclosed by Misawa in view of AAPA in order to reduce power consumption when it is acceptable to drive the imaging device at a lower frequency. Note that reducing the consumption of electricity is intended by Misawa (c. 8, ll. 11-12).

Regarding **claim 4**, refer to the rejection of claim 3 above and Tanaka further discloses that when the drive mode is changed from a first read mode to a second read mode (again, a first mode and a second mode which reads out fewer pixels than the first mode... this is analogous to Misawa's read modes discussed above in the rejection of claim 1), a refresh rate of an image output from one frame of the imaging device is prevented from changing by changing a clock frequency output from the clock generator (refer to Figures 1, 6A, 6B, 8A, and 8B; c. 4, ll. 43-58; c. 6, ll. 4-61; c. 8, l. 4 – c. 9, l. 15).

Regarding **claim 13**, refer to the rejection of claim 4 above and Tanaka further discloses that the camera comprises a switch (selector 24) configured to switch a setting if the clock frequency output from the clock generator is changed or not when the selected drive mode (e.g. from all-pixel read-out mode to thinned read-out mode) is changed (to a mode such as the first frame mode). Please refer to Figure 1 and c. 6, ll. 4-61.

Regarding **claims 24, 25 and 26**, refer to the rejections of claims 3, 4 and 13, respectively.

Claim 30 is a method claim corresponding to apparatus claim 3. Therefore, claim 30 is analyzed and rejected as previously discussed with respect to claim 3.

Claim 31 is a method claim corresponding to apparatus claim 4. Therefore, claim 31 is analyzed and rejected as previously discussed with respect to claim 4.

9. Claims 5, 6, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of AAPA in further view of Tanaka and U.S. Patent No. 6,870,556 issued to Koide et al., hereinafter "Koide".

Regarding **claim 5**, the limitations of claim 4 are taught above, and while Tanaka does teach that the clock frequency output from the clock generator is changed, Tanaka does not explicitly disclose that an exposure amount is prevented from changing by changing a number of electronic shutter pulses output to the imaging device. However, noting the Koide reference, Koide teaches a digital camera (image sensing unit 11) wherein when the clock frequency output from a clock generator is changed (i.e. when the CCD operating rate is changed from A Hz to B Hz), an exposure amount is prevented from changing by changing a number of electronic shutter pulses (electronic shutter value changed from Sf to Sx) output to the imaging device. Please refer to Figs. 5 and 6, and Col. 13, Line 7 - Col. 14, Line 45. It would have been obvious to one of

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ordinary skill in the art at the time the invention was made to have incorporated the changing of electronic shutter pulses output to the imaging device during clock frequency change, as taught by Koide, with the changes in clock frequency output from the clock generator, as taught by Misawa in view of AAPA in further view of Tanaka. One would have been motivated to do so because, as Koide teaches in Col. 3, Lines 8-13, changing the electronic shutter pulses output when the clock frequency is changed prevents overexposure of the image displayed on the LCD, thus providing a similar view to that which will be recorded on a recording medium.

Regarding **claim 6**, the limitations of claim 4 are again taught above, and the Koide reference also teaches that even when the clock frequency output from the clock generator is changed (i.e. when the CCD operating rate is changed from A Hz to B Hz), an exposure amount is prevented from changing by keeping a pulse interval between electronic shutter pulses output to the imaging device, as is again taught in Figs. 5 and 6, and Col. 13, Line 7 - Col. 14, Line 45.

Claim 32 is a method claim corresponding to apparatus claim 5. Therefore, claim 32 is analyzed and rejected as previously discussed with respect to claim 5.

Claim 33 is a method claim corresponding to apparatus claim 6. Therefore, claim 33 is analyzed and rejected as previously discussed with respect to claim 6.

10. Claims 8-10, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of AAPA in further view of U.S. Pub. No. 2001/0012072 filed by Uneo.

Regarding **claim 8**, the limitations of claim 1 are taught above by the Misawa reference in view of AAPA, and while Misawa does teach that the camera comprises a release button used for performing a shutter release operation for photographing (c. 6, l. 66, “shutter release button”) and that the camera has an auto focus function (AF) (c. 7, ll. 36-42; c. 10, ll. 23-34), Misawa fails to show that the camera performs the shutter release operation while depressing the release button stepwise, and wherein when the release button is depressed at a first step (i.e. half press), an auto focus function is performed and an enlarged image is displayed on the image display device.

However, noting the Ueno reference, Ueno teaches a digital camera comprising a release button (shutter-release button 1) used for performing a shutter release operation for photographing, wherein the digital camera has an auto focus function (in-focus confirmation) and performs the shutter operation while depressing the release button stepwise (two-stroke type shutter release button), and wherein when the release button (1) is depressed at a first step (i.e. pressed half-way), an auto focus function is performed and an enlarged image is displayed on the image display device (electronic viewfinder 8). Please refer to Figs. 4 and 7, as well as Paras. [0047] and [0054-0059]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the stepwise operation of the shutter button and the enlarged image display of the object to be focused, as taught by Ueno, with the auto focusing

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function of Misawa. One would have been motivated to do so because, as Ueno teaches in Para. [0005], the small display on the camera makes it difficult for an in-focus determination to be made by the viewer, and thus enlarging the area to be focused aides the user in such a determination. Further, by providing a stepwise release button to control the auto focus timing, the use of many buttons by the operator of the camera can be avoided, thus aiding in quick capture of a desired scene.

Regarding **claim 9**, again the limitations of claim 1 are set forth above, and Paras. [0056-0057] of the Ueno reference teach that a release button (shutter button 1) is used for performing a shutter release operation for photographing, wherein when the release button is depressed (i.e. pressed all the way), the whole image (image data representing the image of the subject) is recorded while displaying the enlarged image on the image display device.

Regarding **claim 10**, again the limitations of claim 1 are shown above, and Ueno further teaches that even though a first enlargement instruction is input to the enlarging display setting device (i.e. half- press), a maximum enlarged image (in focus confirmation image shown in Fig. 6) is displayed on the image display device under the condition that the selected drive mode is not changed (which includes not changing to a first frame mode). Please refer again to Paras. [0047] and [0054-0059].

Claim 35 is a method claim corresponding to apparatus claim 8. Therefore, claim 35 is analyzed and rejected as previously discussed with respect to claim 8.

Claim 36 is a method claim corresponding to apparatus claim 9. Therefore, claim 36 is analyzed and rejected as previously discussed with respect to claim 9.

11. Claims 14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of AAPA in further view of Tanaka and U.S. Patent No. 6,700,610 issued to Kijima et al., hereinafter "Kijima".

Regarding **claim 14**, the limitations of claim 13 are taught above by Misawa in view of AAPA in further view of Tanaka, but the combination fails to teach that the camera comprises a power supply capacity checking device to check and detect a capacity of a power supply, wherein when the power supply capacity checking device detects that the capacity of the power supply is less than a predetermined value, the clock frequency output from the clock generator is not increased regardless of whether the switch switches the setting or not.

However, noting the Kijima reference, Kijima teaches a digital camera having a power supply capacity checking device (battery checker 27) configured to check and detect a capacity of a power supply (e.g. a battery), wherein when the power supply capacity checking device detects that the capacity of the power supply is less than a predetermined value, the clock frequency output from the clock generator (i.e. output frequency from the signal generator 17) is not increased (i.e. from frequency fl to

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frequency f2) regardless of whether the switch switches the setting or not. Please refer to Fig. 8 and Col. 11, Line 47 - Col. 12, Line 9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the power supply capacity checking device of Kijima with the digital camera of Misawa in view of AAPA in further view of Tanaka. One would have been motivated to do so because, as Kijima teaches in Col. 4, Lines 50-62, increasing the clock frequency output from a clock generator greatly increases the power consumption from the power supply, possibly resulting in stoppage of the system operation if the power supply reaches a low level. Thus, by checking the power supply capacity before increasing clock frequency, the user can be assured that the operation of the system will not cease solely due to a change in clock frequency.

Regarding **claim 27**, refer to the rejection of claim 14.

Allowable Subject Matter

12. As stated in the previous Office Action (dated 27 March 2008), claims 11 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/
Supervisory Patent Examiner, Art
Unit 2622

RMB